

### **Abstract**

An initialization method is performed to initialize the states for producing downlink scrambling code for a WCDMA mobile device. The initialization method uses an auxiliary x-LFSR advance the x-initial state to a new initial state that corresponds to a selected downlink scrambling code. The new initial state allows the remaining masks used for generating the downlink scrambling code to be fixed. Memory required to produce the downlink scrambling codes is therefore reduced, as it is no longer dedicated to storing the sets of masks corresponding to each of the possible downlink scrambling codes.

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